This information was up to date at the time of release to the Heads of Midwifery.
The editorial board does not accept liability for any errors or omissions following its subsequent publication.
Updating arrangements for the formulary should be decided upon and implemented at a local level.

Syntometrine® - Postpartum Haemorrhage (PPH)

Legal status (GSL, P or POM on exemption list, or PGD)	▪ POM - Midwife Exemption - midwife may administer parenterally
Patient group	Women with postpartum haemorrhage (PPH) due to uterine atony.
Clinical indication	Emergency treatment of PPH in accordance with local guideline. Progression through the treatment cascade must be taken into account.
Pharmacology (Onset and duration of action where appropriate)	Syntometrine® combines the known sustained oxytocic action of ergometrine with the more rapid action of oxytocin on the uterus and it is effective in controlling uterine haemorrhage. After IM administration, onset of action is considerably shorter with Syntometrine® (about 2.5 minutes) compared to ergometrine alone (about 7 minutes) and the uterotonic effect of Syntometrine® lasts for around 3 hours compared to 0.5 to 1 hour with oxytocin alone.
Pharmaceutical form, strength, route of administration	Syntometrine ® contains oxytocin 5 units and ergometrine maleate 500micrograms in 1ml ampoule for injection. For intramuscular (IM) injection usually on the upper thigh.
Dose, frequency and maximum number of doses or period of time for administration or supply	1ml as a single IM dose. Maximum of 1 dose.
Writing of medicines by midwives: example	**Inpatient** **Write single dose in the "once only" section of the Medicine Chart** **Medicine (Approved Name):** SYNTOMETRINE **Dose:** 1ml **Route:** IM **SIGN and PRINT NAME followed by (MW)**
Contra-indications/exclusion criteria	▪ Known hypersensitivity to any component of the medicine. ▪ During pregnancy and first or second stages of labour. ▪ Severe hypertension or pre-eclampsia, eclampsia. ▪ Occlusive vascular disorders. ▪ Severe cardiac disease, liver or renal impairment. ▪ Severe sepsis with peripheral shut down or requiring intensive care. ▪ Impairment of pulmonary function. ▪ In breech presentations and other mal presentations. ▪ Syntometrine® should not be given until after delivery and, in multiple births, not until the last baby has been delivered.

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Cautions and action that will be taken if a caution applies	• Anaphylaxis in women with latex allergy- There have been reports of anaphylaxis following administration of oxytocin in women with a known latex allergy. Due to the existing structural homology between oxytocin and latex, latex allergy/intolerance may be an important predisposing risk factor for anaphylaxis following oxytocin administration. ▪ If bleeding is not arrested, consider possibility of retained placental fragment, or soft tissue injury (cervical or vaginal laceration), or clotting defect and take appropriate measures. ▪ Vasoconstriction and rarely acute pulmonary oedema. ▪ Mild or moderate hypertension, cardiac, liver or kidney disease (contra-indications if severe) - women with coronary artery disease may be more susceptible to angina or myocardial infarction. ▪ History of QT prolongation syndrome (see medicine interactions). ▪ Acute porphyria. ▪ Multiple pregnancy - should not be given until after delivery of the last baby. ▪ Raynaud's disease. ▪ Check for and document any allergies. ▪ Check and document past medical and drug history and current medication to ascertain potential for overdose. ▪ If a caution applies consult with a doctor. ▪ Document consultation in women's maternity record.

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Medicine interactions and action that will be taken if a patient is taking a medicine that may interact	▪ **Anti-retrovirals** (ritonavir, indinavir, nelfinavir, atazanavir and efavirenz): increased risk of ergotism (symptoms of vasospasm, and ischaemia of extremities resulting in gangrene or convulsions) ▪ **Dopamine and other sympathomimetic agents including oxytocin, beta blockers, sumatriptan:** enhanced vasoconstriction may occur especially during anaesthesia and may lead to severe postpartum hypertension ▪ **Prostaglandins and their analogues** eg dinoprostone and carboprost: May potentiate the uterine action ▪ **Glyceryl trinitrate:** Effect may reduce by egometrine ▪ **Beta-blockers** eg labetolol: May enhance the vasoconstrictive action ▪ **Anaesthetics inhalational agents** (halothane, cyclopropane, sevoflurane, desflurane, isoflurane**):** may reduce uterotonic effect and cause cardiac arrrhythmias ▪ **Strong CYP3A4** inhibitors (such as erythromycin, clarithromycin, ciprofloxacin): increased risk of ergotism (symptoms of gangrene or convulsions). ▪ **Strong CYP3A4 inducers antivial/antibiotics** (such as nevirapine, rifampicin): may reduce the clinical effect of ergometrine. ▪ **Tryptans(anti-migraine eg sumatriptan);** May enhance the vasoconstrictive action ▪ **Vasocontrictors/Sympathomietics**(such as ephedrine and phenylephrine,used in caudal anaesthesia): risk hypertension ▪ **QT prolongation agents:** (such as amitriptyline, clarithromycin, citalopram, clomipramine, chlorpromazine, ciprofloxacin, domperidone, erythromycin, escitalopram, fluconazole, fluoxetine, hydroxychloroquine, imipramine, lithium, methadone, ondansetron, promethazine, prochlorperazine quetiapine, sertraline, venlafaxine): greater risk of arrhythmias ▪ **Medicines that are unlikely to be used during pregnancy and immediate postpartum period:** almotriptan, amiodarone, amisulpride, anagrelide, apomorphine, aripiprazole, artemether, asenapine, atomoxetine, azithromycin, benperidol, boceprevir, buserelin, chloroquine, cimetidine, clozapine, clofazimine, cobicistat, crizotinib, darunavir, disopyramide, doxepin, dosulepin, droperidol, desipramine, delamanid, eletriptan, fingolimod, foscarnet, fluvoxamine, fluphenazine, flupentixol, fosamprenavir, frovatriptan, dronedarone, granisetron, goserelin, haloperidol, hydroxyzine, idelalisib, itraconazole, ivabradine, ketoconazole levomepromazine, leuprorelin, lofexidine, lofepramine, lurasidone, mefloquine, levofloxacin, mizolastine, moxifloxacin, naratriptan, norfloxacin, nortriptyline, ofloxacin, olanzapine, pasireotide, perphenazine, pericyazine, pentamidine, paliperidone, palonosetron, pimozide, procainamide, risperidone, rizatriptan, promazine, quinine, quinidine, reboxetine, sildenafil, saquinavir, solifenacin, sotalol, spiramycin, sulpiride, tacrolimus, telaprevir, tetrabenazine, tetracyclines, ticagrelor tolterodine, trazodone, trifluoperazine, trimipramine, triptorelin, terlipressin, thioridazine, voriconazole, zolmitriptan, zuclopenthixol ▪ **Grapefruit juice** ▪ If there is a clinically significant drug interaction, consult with an authorised prescriber/doctor and pharmacist before administration. ▪ Document consultation in woman's maternity record Refer to current BNF for latest information on interactions

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Potential adverse reactions and side effects including actions to be taken if adverse medicine reaction is suspected	▪ **On labour:** N/A ▪ **On the neonate:** accidental administration can be fatal ▪ **On breast feeding:** excreted in breast milk; may reduce milk secretion. ▪ **Gastrointestinal**: nausea, vomiting, abdominal pain. ▪ **Immune system disorders:** anaphylactoid reactions associated with dyspnoea, hypotension, collapse or shock. ▪ **Cardiovascular:** transient hypertension, vasoconstriction, cardiac arrhythmias, coronary arteriospasm and very rarely myocardial infarction, chest pain, palpitations and bradycardia especially after intravenous administration. ▪ **Respiratory:** dyspnoea, acute pulmonary oedema (rarely). ▪ **CNS**: headache, dizziness. ▪ **Ear, nose and throat:** tinnitus ▪ **Skin**: rashes, angioedema. *Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard.*
Overdose	▪ Symptoms include; nausea, vomiting, diarrhoea, extreme thirst, coldness, itching and tingling skin, tachycardia, confusion, convulsions, coma, hypertension, hypotension and angina ▪ Accidental administration to the newborn has proved fatal. Symptoms such as respiratory depression, convulsions, cyanosis, oliguria, hypertonia and heart arrhythmia have been reported. ▪ Immediate assessment/treatment is essential - refer to doctor. ▪ Manage in accordance with established treatment guidelines or see BNF overdose section. ▪ For further advice contact National Poisons Centre 0344 892 0111
Action if patient declines	▪ Refer to authorised prescriber or doctor. ▪ Document in woman's maternity record.
Additional advice and information	▪ Supply the manufacturer's Patient Information Leaflet if requested.
Patient monitoring arrangements during and after treatment and follow-up required	Additional resuscitative measures should be applied according to the local Obstetric Haemorrhage Guideline. Check full blood count and urea and electrolytes. Refer all women who have received Syntometrine® for PPH to a doctor.
Particular storage requirements	▪ Protect from light. ▪ Store at 2 - 8°C. Syntometrine® may be stored up to 25°C for 2 months when protected from light, but must then be discarded (mark revised expiry date on box).

References

1. Summary of Product Characteristics (Syntometrine®) text revision 6.12.2019 Accessed 17.12.2019 http://www.medicines.org.uk.
2. http://www.bnf.org.